tle free in front as far as respiratory orifice. Back rather bluntly keeled its whole length; rugæ rather flattened and obtuse, consisting of grooves inclosing mostly hexagonal lozenge-shaped spaces, which are themselves rugose. Color, uniform brown-black without markings, except some dark marbling on the lighter sides. The portion beneath and in front of the mantle is pale, and the head and neck have a gray tinge. Foot brown. Internal shell solid, easily extricated without breaking.

Cuyamaca Mountains, San Diego Co., California.

Jaw low, wide, slightly arcuate, ends blunt, anterior surface with about twenty wide, flat ribs, squarely denticulating either margin.

Lingual membrane short and narrow. Teeth 20–1–20, of which eight only on either side are laterals. Centrals tricuspid, laterals bicuspid, marginals quadrate, bluntly bicuspid.

I am indebted to Mr. Binney and Mr. Cockerell for assistance in preparing the above description.

TWO NEW SPECIES OF U. S. LAND SHELLS.

BY H. A. PILSBRY.

Zonites Shimekii Pilsbry. This is a larger form than *Zonites limatulus*, much less depressed. The specimens are from the *Loess* formation, at Iowa City, Iowa, collected by Prof. B. Shimek and the writer some years ago. Being fossil, they lack color and epidermis. The sculpture is similar to *Z. limatulus*.

Alt. 3, diam 6 mill.

Pupa syngenes Pilsbry. Shell subcylindrical but wider above, composed of 8 narrow, convex whorls, *sinistrally convoluted;* texture as in *P. muscorum*, but color rather lighter brown. Last whorl ascending, imperforate, bearing a strong high crest just behind the outer lip. Aperture shaped as in *muscorum*, having a single small parietal denticle. Alt. $3\frac{3}{4}$, diam. $1\frac{2}{3}$ mill.

Two specimens of this form are before me, and I am in doubt whether to give them a new name, as they may be only sinistral monstrosities of the common *P. muscorum*. The shells are labeled "*Arizona*" in the Academy collection, collector not known.

[Since the above paragraphs were in type, I have received a communication from my friend Dr. V. Sterki, to whom I sent a speci-

men of *P. syngenes*, which I at first described as a variety of *muscorum*. He says:

"I am satisfied that it is a species, and not a var. of muscorum: the shape of the whole shell, the last whorl so considerably flattened, and ascending, the number of whorls, seem to me to prove its specifical rank. * * * After washing out the aperture of your specimen I saw a rather strong lamella or tooth on the columella, and a barely perceptible trace of an inter-palatal lamella, which however is validified by the impression on the outside."]

ANNOTATED LIST OF THE SHELLS OF ST. AUGUSTINE, FLA.

BY C. W. JOHNSON.

Teredo nivalis L.

Pholas campechiensis Gmel. Single valves are common on the ocean beach but living examples are rarely found.

Pholas costata L. Common.

Pholas truncata Say. A few specimens in the hard mud on Anastasia Island.

Martesia cuneiformis Say. Common burrowing into coquina wood, etc.

Solen americana Gould. Not common and smaller than those from more northern localities.

Solen viridis Say. A few specimens.

Glycimeris reflexa Say. One specimen with both valves intact was found on a bar in the harbor.

Glycimeris americana Conr. (G. bitruncata Conr.) Single valves are occasionally found on the ocean beach—apparently recent.

Mya arenaria L. A few single valves.

Corbula contracta Say. Common.

Mactra solidissima Dillw. var. *similis* Say. Common.

Mactra lateralis Say. Common.

Mactra braziliana Lam. (M. oblonga Say.) Not common.

Labiosa lineata Say. A few single valves on the ocean beach.

Labiosa canaliculata Say. Common.

Semele orbiculata Say. Common.

Abra aequalis Say. Common.

Cumingia tellinoides Conr. Not common.